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September 10, 2013

Ms. Marlene H. Dortch
Secretary, Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: **Notice of Ex Parte Communication** in the Matter of WC Docket No. 13-184

Dear Ms. Dortch,

On September 6, 2013, Tom Koutsky and I, of Connected Nation, met with Nicholas Degani, Legal Advisor Office of Commissioner Pai, to discuss the modernization of the eRate program.

Connected Nation discussed the need for a comprehensive review of the data that USAC collects and releases regarding the program. Detailed, granular data of the services supported by the program is essential to determine whether eRate is meeting prescribed goals and ensure the program is effectively supporting the telecommunications technology needs of schools and libraries in the 21st century. Furthermore, Connected Nation submits that granular, geographic, public data of funding commitments under the program will inject a healthy dose of competitive stimulus into the system. As such, data transparency will benefit eRate program beneficiaries and contribute to a more efficient use of limited USF funds.

For these reasons, Connected Nation proposes that the FCC, working closely with USAC, undertake a comprehensive review of the data collected and routinely released by USAC under the Schools and Libraries program. The goal of such a review should be to ensure the necessary data is released as a matter of routine and in a timely fashion, while minimizing the burden for program applicants.

Connected Nation is a not-for-profit organization working with communities and states to stimulate growth of broadband access, adoption and use across both rural and non-rural areas. To do so Connected Nation partners with hundreds of community institutions, including schools and libraries across multiple states. As part of the State Broadband Initiative (SBI) grant program, Connected Nation collects data on broadband use across schools and libraries in 9 states and Puerto Rico. Based on that data, Connected Nation recently released the enclosed policy brief regarding Examining School and Library Broadband Connectivity, which estimates the percentage of schools and libraries in rural and non-rural areas using broadband at speeds of 100 Mbps or more in those jurisdictions.

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These data was presented and discussed during the meeting, along with research conducted by Connected Nation regarding the impact and use of broadband in the education sector in several states, including:

- Broadband: Boosting Education in Iowa
- Broadband: Creating Educational Opportunities Across Michigan
- Broadband and Education: Enriching Ohio's Students through Technology

Pursuant to Commission rules, please include a copy of this filing in the above-referenced docket. Should you have any questions, please feel free to contact me directly.

Sincerely,

s/Raquel Noriega

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cc: Nicholas Degani, FCC

Examining School and Library Broadband Connectivity

A Connected Nation Policy Brief

July 19, 2013

The average school and library today has about the same connectivity as the average American home – but as digital learning technology expands both inside and outside the classroom, the need to have more robust broadband capacity at our nation's community institutions will increase. On June 6, 2013, President Barack Obama announced his Administration's ConnectED initiative, a plan to bring very high-speed broadband Internet to the nation's schools. The centerpiece of the ConnectED initiative is a fundamental reform of the Federal Communications Commission's (FCC) $2.3 billion Schools and Libraries Universal Service Fund program, commonly known as "E-Rate." Created in 1996, E-Rate provides school and libraries with discounts on telecommunications and Internet services.

Today, the FCC adopted a Notice of Proposed Rulemaking (NPRM) proposing several sweeping changes to the E-Rate program. The action proposes to establish goals for the E-Rate program, including a target that 99% of America's schools will have broadband speeds of no less than 100 Mbps by 2015, with an ultimate target of 1 Gbps by 2020. While the full text of the FCC's action has not yet been released, the FCC has released a Fact Sheet, a news release, and Commissioner's statements on the action (Chairwoman Mignon Clyburn, Commissioner Jessica Rosenworcel, and Commissioner Ajit Pai). The FCC vote today begins an official public debate about this reform that is likely to take many months and engage representatives from multiple stakeholder groups.

The ConnectED initiative's call for capacity upgrade is a significant, national effort that will require tens of millions of dollars and an understanding of the current status of broadband in our nation's learning institutions. In this Policy Brief, Connected Nation analyzes data on K-12 school and library connectivity collected across nine states and the territory of Puerto Rico. We find that **there are significant differences in high-speed broadband adoption among states, and that there are substantial gaps in low-income and rural areas.**

- **Approximately 34% of schools and only 3% of libraries surveyed** by Connected Nation currently report having 100 Mbps download broadband connections
- **Connectivity across states analyzed by Connected Nation varies greatly,** ranging from **54% of schools with 100 Mbps connections in Nevada** to **fewer than 1% of schools in Puerto Rico**
- **Community income level is a significant driver of 100 Mbps broadband across schools**

Schools in some states such as Nevada (where 54% of schools report having download speeds of 100 Mbps or faster) are much closer to meeting the President's high-speed connectivity goal than other jurisdictions, most notably Puerto Rico. These results are similar to other studies and FCC findings discussed today that indicate that the majority of schools and libraries do not have the bandwidth they need to meet current and future needs.

Importantly, very few libraries met this goal of 100 Mbps download speeds. Libraries are one of the most important locations outside of the classroom where students research and complete their schoolwork. Understanding the scope and scale of the needed broadband upgrades across the nation's libraries is essential to any national initiative to advance digital learning.

School and Library Connectivity Varies Widely Between States

High-speed broadband adoption at schools and libraries varies considerably by state. Table 1 below shows the percentage of surveyed schools and libraries that report that they subscribe to broadband at download speeds of at least 100 Mbps.

Table 1.
Estimated Percentage of Institutions with Download Speeds of 100 Mbps or Greater

	Schools	Libraries
Alaska	11%	<1%
Iowa	7%	2%
Michigan	38%	3%
Minnesota	1%	<1%
Nevada	54%	<1%
Ohio	66%	1%
Puerto Rico	<1%	<1%
South Carolina	47%	7%
Tennessee	37%	1%
Texas	23%	10%
All 10 Jurisdictions	34%	3%

Slightly more than one-third of schools and only 3% of libraries surveyed report having broadband connections of 100 Mbps or above. These data are consistent with other available studies, such as research conducted by Education SuperHighway (conducted through school speed tests).

The Rural/Urban and Income Gaps in School and Library Connectivity

There is a significant urban/rural gap in connectivity, particularly among schools.

Table 2.
Estimated Percentage of Institutions with Download Speeds of 100 Mbps or Greater

	Schools		Libraries	
	Rural	Non-Rural	Rural	Non-Rural
Alaska	5%	45%	<1%	<1%
Iowa	4%	13%	1%	2%
Michigan	37%	42%	3%	4%
Minnesota	1%	<1%	<1%	<1%
Nevada	12%	70%	<1%	<1%
Ohio	62%	71%	<1%	3%
Puerto Rico	<1%	<1%	<1%	<1%
South Carolina	46%	50%	5%	10%
Tennessee	29%	45%	<1%	1%
Texas	8%	61%	6%	12%
All 10 Jurisdictions	23%	53%	2%	4%

Community income appears to play a role explaining regional differences in school and library broadband connectivity. But even accounting for income differences, there is a significant gap in rural school and library broadband connectivity – rural schools and libraries are less likely to subscribe to broadband at speeds of at least 100 Mbps than schools and libraries in non-rural areas with similar household incomes.

Table 3.
Estimated Percentage of Institutions with Download Speeds of 100 Mbps or Greater by County-Level Median Household Incomes

County-Level Median Household Income	Schools		Libraries	
	Rural	Non-Rural	Rural	Non-Rural
Less than $15,000	<1%	<1%	<1%	<1%
$15,000 - $24,999	3%	<1%	<1%	<1%
$25,000 - $34,999	26%	16%	1%	<1%
$35,000 - $49,999	26%	62%	2%	4%
$50,000 or more	28%	57%	2%	5%
Average	23%	53%	2%	4%

Source: United States Census, 2010 Poverty and Median Income Estimates; Connected Nation

Data Collection Method

The school and library survey data reported above was collected by Connected Nation as part of the U.S. Department of Commerce, National Telecommunications and Information Administration's (NTIA) State Broadband Initiative (SBI) grant program. As part of the SBI grant program, Connected Nation collects and reviews broadband availability and community anchor institution connectivity in Alaska, Iowa, Michigan, Minnesota, Nevada, Ohio, Puerto Rico, South Carolina, Tennessee and Texas. Connected Nation utilizes this information to inform statewide broadband planning as well as the work of local and regional technology planning teams, which frequently include school districts and public libraries, as well as other community institutions.

As part of this effort, from 2009 through the present, Connected Nation has mapped and collected broadband availability and adoption information from thousands of K-12 schools and libraries in these jurisdictions. This information is collected in collaboration with state government agencies and through surveys of these institutions. Data updates of the community anchor institution's actual connectivity is reported to the NTIA twice a year and presented on the National Broadband Map, www.broadbandmap.gov. This data set includes survey responses from 3,620 of the 6,960 identified libraries (or 52%) and 12,323 of the 36,908 K-12 schools (or 33%) identified within these jurisdictions, and it represents one of the most extensive databases of community anchor institution connectivity across the nation. It is important to note that the broadband speeds analyzed are based on self-reported information regarding school and library broadband subscription speeds – actual throughput data may differ. As a result, this analysis should be considered as a complement to and not a substitute for other evaluation tools such as speed tests, on-going surveys or data collected and reported through the E-Rate program.

Conclusion

As the FCC embarks on the modernization of the E-Rate program, it will be important to study and understand these significant state, rural, and income gaps in broadband connectivity in our nation's schools and libraries. These variations indicate that state and local decisions have had a significant impact on the adoption and use of broadband technology at schools and libraries. The success of the national initiative to expand digital learning – both inside and outside the classroom – will require the closing of the significant connectivity gaps that this Connected Nation analysis reveals.

For more information about Connected Nation's education initiatives and broadband expansion efforts, please contact Connected Nation at policy@connectednation.org.